

face to provide additional cooling to a VFD said additional enclosure having a cooling component operatively connected therein.

13. In the housing of claim 12 wherein the cooling component of the additional enclosure is a heat sink.

14. In the housing of claim 1, wherein the first compartment has at least one back panel for the mounting of electrical components.

15. In the housing of claim 3 wherein the main circuit breaker is mounted on at least one cross beam disposed between the side walls of the second compartment and positioned away from where the transformer would be and distant from the cooling components of said second compartment.

16. In the housing of claim 9 wherein the enclosures on the rear faces of the two compartments have louvers that face down, on all vertical faces of each enclosure.

17. A NEMA 3R housing for a variable frequency drive (VFD), to allow it to operate without refrigeration at extreme temperatures, which housing comprises:

(A) two compartments, each having a front face and a rear face and one side face, said compartments disposed side by side separated by a common wall, the first of which compartments would house a variable frequency drive (VFD) and the second of which would house a transformer for the VFD;

the first compartment having a pair of opposed opening outer doors and two inner doors at the front, and the electrical components necessary to operate the specific VFD under the desired operating conditions disposed in said first compartment;

the second compartment having an outer door and an inner door on the front face,

each compartment having enclosures for cooling components disposed on the rear face thereof, which enclosures communicate with openings in the rear face of the respective compartment to provide cooling to each of the VFD and the transformer to be disposed in the respective compartments.

18. In the housing of claim 17 wherein in one inner door of the pair of opposed opening inner doors of the first compartment, there is a recessed chamber with its own chamber door thereon, said recessed chamber having some of the electrical components for the operation of the VFD disposed therein and farther wherein the door of the recessed chamber has controls for the electrical components mounted thereon.

19. In the housing of claim 18, wherein the second compartment has a main circuit breaker mounted therein and wherein the main circuit breaker is electrically connected, such that opening of any inner door present will shut down a VFD present and a transformer present.

20. In the housing of claim 17 wherein cooling components are disposed in each of the enclosures, and said enclosures have downward facing louvers therein for hot air exhaustion.

21. In the housing of claim 20, wherein the cooling components in the first compartment's enclosure are a heat sink and a heat sink fan and wherein the cooling components in the second compartment's enclosure are a pair of fans.

22. In the housing of claim 17, wherein the cooling components in the first compartment's enclosure comprise a

heat sink and a heat sink fan, and wherein the cooling components in the second compartment's enclosure comprise a pair of fans

23. In the housing of claim 22 further including an additional enclosure having louvers therein, said additional enclosure disposed on the side face of the first compartment, being in fluid communication with an opening in said side face to provide additional cooling to a VFD said additional enclosure having a cooling component operatively connected therein.

24. In the housing of claim 23, wherein the second compartment's outer door has a set of upward facing louvers mounted on the inside surface of the outer door, spaced from said inside door surface and in fluid communication with the downward facing louvers on the outer surface of the outer door to permit airflow but to inhibit rain entry.

25. In the housing of claim 23 wherein the cooling component of the additional enclosure is a heat sink and further wherein the first compartment has at least one back panel for the mounting of electrical components.

26. In the housing of claim 23 wherein the main circuit breaker is mounted on at least one cross beam disposed between the side walls of the second compartment and positioned away from where the transformer would be and distant from the cooling components of said second compartment.

27. In the housing of claim 25 wherein the enclosures on the rear faces of the two compartments have louvers that face down, on all vertical faces of each enclosure

28. A NEMA 3R housing for a variable frequency drive (VFD), to allow it to operate without refrigeration at extreme temperatures, which housing comprises:

(A) two compartments, each having a front face and a rear face and one side face, said compartments disposed side by side separated by a common wall, the first of which compartments would house a variable frequency drive (VFD) and the second of which would house a transformer for the VFD;

the first compartment having a pair of opposed opening outer doors and two inner doors at the front, and the electrical components necessary to operate the specific VFD under the desired operating conditions disposed in said first compartment;

the second compartment having an outer door and an inner door on the front face,

each compartment having enclosures for cooling components disposed on the rear face thereof, which enclosures communicate with openings in the rear face of the respective compartment to provide cooling to each of the VFD and the transformer to be disposed in the respective compartments;

wherein in one inner door of the pair of opposed opening inner doors of the first compartment, there is a recessed chamber with its own chamber door thereon, said recessed chamber having some of the electrical components for the operation of the VFD disposed therein and further wherein the door of the recessed chamber has controls for the electrical components mounted thereon and further wherein the second compartment has a main circuit breaker mounted therein and wherein the main circuit breaker is electrically connected, such that opening of any inner door present will shut down a VFD present and a transformer present.